

What is claimed is:

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1. An image pickup device comprising:  
an image sensor having rectangular light receiving portions arranged in a  
matrix, and microlenses disposed in correspondence with said light receiving portions,  
5 said light receiving portions and said microlenses being formed integrally with each  
other;  
an image input optical system for forming an image on said image sensor, said  
image input optical system including a diaphragm; and  
the diaphragm whose shape in a horizontal direction coincides with a shape of  
10 said light receiving portions of said image sensor.
2. An image pickup device as claimed in claim 1, wherein said  
diaphragm has an oval shape that is circular in a vertical direction and is linear in the  
horizontal direction.  
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3. An image pickup device as claimed in claim 1, wherein said image  
sensor has charge transferring portions adjoining said light receiving portions.
4. An image pickup device comprising:  
20 an image sensor having rectangular light receiving portions arranged in a  
matrix, and microlenses disposed in correspondence with said light receiving portions,  
said light receiving portions and said microlenses being formed integrally with each  
other;  
an image input optical system for forming an image on said image sensor, said  
25 image input optical system including a diaphragm and a light restricting plate; and

the light restricting plate whose shape in a horizontal direction coincides with a shape of said light receiving portions of said image sensor, said light restricting plate being provided separately from said diaphragm.

021 5 5. An image pickup device as claimed in claim 4, wherein said light restricting plate is disposed on one side in the horizontal direction.

6. An image pickup device as claimed in claim 4, wherein said light restricting plate has an oval shape that is circular in a vertical direction and is linear in  
10 the horizontal direction.

7. An image pickup device as claimed in claim 4, wherein said image sensor has charge transferring portions adjoining said light receiving portions.

15 8. An image input optical system for forming an image on an image sensor which has rectangular light receiving portions arranged in a matrix, and microlenses disposed in correspondence with said light receiving portions, said light receiving portions and said microlenses being formed integrally with each other, comprising:

20 at least one lens element; and

a diaphragm whose shape in a horizontal direction coincides with a shape of said light receiving portions of said image sensor.

9. An image input optical system as claimed in claim 8, wherein said  
25 diaphragm has an oval shape that is circular in a vertical direction and is linear in the

horizontal direction.

10. An image input optical system as claimed in claim 8, wherein said image sensor has charge transferring portions adjoining said light receiving portions.

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11. An image input optical system for forming an image on an image sensor which has rectangular light receiving portions arranged in a matrix, and microlenses disposed in correspondence with said light receiving portions, said light receiving portions and said microlenses being formed integrally with each other,

10 comprising:

at least one lens element;

a diaphragm; and

a light restricting plate whose shape in a horizontal direction coincides with a shape of said light receiving portions of said image sensor, said light restricting plate being provided separately from said diaphragm.

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12. An image input optical system as claimed in claim 11, wherein said light restricting plate is disposed on one side in the horizontal direction.

13. An image input optical system as claimed in claim 11, wherein said light restricting plate has an oval shape that is circular in a vertical direction and is linear in the horizontal direction.

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14. An image input optical system as claimed in claim 11, wherein said image sensor has charge transferring portions adjoining said light receiving portions.

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